

Grading Inspection 1152 E Fruit St., Bldg #6 Santa Ana, CA 92701 (714) 245-4550

(714) 567-7810 Fax

# COUNTY OF ORANGE OC PUBLIC WORKS PRECISE GRADING PERMIT PRE-PAVING MEETING

GRADING PERMIT NO: GB:	TRACT#:	LOT #'s	
JOB ADDRESS:			
OWNER:	PERMIT EXPIRE	ES ON:	
CIVIL ENGINEER OF RECORD:	SOIL ENGINEER OF RECORD:		
PAVING CONTRACTOR:			

#### I. General Requirements:

- A. An original approved set of grading plans\*, preliminary soil report, and a copy of the grading permit shall be on the job at all times; working hours are Monday thru Saturday, 7 a.m. to 8 p.m. Work other than this time requires prior authorization and may involve approval by Board of Supervisors.
- \* An approved grading plan is defined as the set of plans containing a Grading Section departmental stamp and signature.

#### B. CALLING FOR INSPECTION:

- Inspection requests must be made the day **PRIOR** to the requested day of inspection.
- To request inspection, use the automated inspection line by calling (714) 796-0407, or by going to the County of Orange's web site at ocplanning.com Requests can be made up to 11:00 PM for the next business day's inspection. Future inspection requests can also be made.
- Use the Inspection Item Numbers identified during the pre-grade meeting to set up the required inspections.
- If a specific time is needed to set up the inspection, contact the inspector on the morning of the inspection during the office hours noted above. Inspections will be provided on that day if workload and logistics allow.
- You must recall your inspection if an inspection you called for was not made.
- If you must cancel an inspection, please do so before the inspector leaves for the field by contacting him during the above noted office hours to avoid show-up charges to the permit.
- C. **State Water Resources Control Board** requirements: This project must comply with State of California water quality standards. If this project is North of El Toro Road, refer to <a href="http://www.swrcb.ca.gov/rwqcb8/">http://www.swrcb.ca.gov/rwqcb8/</a> (Santa Ana Regional Water Quality Control Board); if South of El Toro Road, refer to <a href="http://www.swrcb.ca.gov/rwqcb9/">http://www.swrcb.ca.gov/rwqcb9/</a> (San Diego Regional Water Quality Control Board). Study the respective laws for their applications to this site. Inspectors from both the State and the County specializing in these water quality standards will routinely visit the site to verify compliance.

#### D. CHANGES TO APPROVED GRADING PLAN AND SITE CONDITIONS:

- Work covered by this permit must conform to the approved grading plans and soil reports. Changes found during an inspection may result in a STOP WORK NOTICE. Clearing of brush and/or grading activities that encroach beyond the approved grading and permit limits shown on the plan is strictly prohibited.
- AS-BUILT PLANS ARE NOT ALLOWED. Talk to your grading inspector and engineer before making any changes.
- Revisions to the plans must be submitted, reviewed, and approved PRIOR to starting the revised work.
- Submit 5 sets of revised plans, 2 copies of a geotechnical review of the revised plans, and the last approved set of
  grading plans (all as a package) to the Main Office, to the attention of your inspector noted above. Plan check review
  will be required of all revisions.

#### **PAVING INSPECTION**

Pavement, base course, and sub-grade specifications shall conform to any combination of the specifications and provisions established in the Orange County Grading & Excavation Code, the P.F.R.D. Standard Plans, the

Standard Specifications for Public Works Construction handbook ("Greenbook"), and the approved recommendations provided by the project engineers.

**NOTE**: The paving design must be reflected within County Grading Section approved grading plans and/or **approved** geotechnical reports prior to initiating any of the stages of work outlined below.

The approved paving section for this project is:	ASPHALT/	BASE [parking]
	ASPHALT/	BASE [drives]

### INSPECTION ITEM NO.

#### **REQUIRED GRADING INSPECTIONS:**

#### **860** 1) **SUBGRADE**:

After the sub-grade has been established to allow for the approved paving section noted above. The inspector may string-line the area to verify the required paving section if discrepancies are found.

#### **Required Field Paperwork:**

- line & grade certification from civil engineer (must state actual paving section being certified)
- memo from soil engineer approving minimum 90% R.C. (must include all utility trench or retaining wall backfill influencing areas to be paved)

<u>FULL DEPTH ASHPALT SECTIONS</u>: The sub-grade requirements for compaction shall be a minimum of 95% R.C.; weed killer is required on all sub-grade areas prior to AC placement when gravel base is not being used.

#### **861** 2) GRAVEL BASE:

After untreated gravel base has been placed, but prior to placement of prime coat and asphalt. Gravel material must be evenly spread (no segregation of larger rock from smaller-particle rock). The Inspector will string-line the area to verify the asphalt section will fit above the gravel section. Prime coat of base may be required if the area will not be paved within 48 hours.

#### **Required Field Paperwork:**

- line & grade certification from the civil engineer
- **memo from the soil engineer** approving minimum 95% R.C., providing gradation results of the gravel, and stating that the gravel meets the design specifications. Any suspected or potential deterioration of sub-grade condition (i.e.: rain) may require recertification.
- gradation and sand equivalency per green book (section 200-2)

#### 862 | 3) ASPHALT LAYDOWN:

#### **GENERAL**:

- County inspection required each day of AC lay-down
- deterioration of prior work (i.e.: rain) may require recertification
- paving machine may be required if the area being paved is of substantial size that a paving machine is needed to insure a controlled and even placement of the design paving section
- 12 tone roller for initial or breakdown roll may be required, unless density testing of the asphalt can be made to verify 95%RC and if approved by the soil engineer.
- **FULL TIME INSPECTION REQUIRED** on the part of the engineer (i.e.: project geotechnical engineer) qualified in the area of asphalt placement.

#### **ENGINEERING REPRESENTATIVE:**

- Has the authority to stop any stage of work should the paving operation not comply with the required standards
- Must be on site just prior to first load of AC to verify condition of prior work, if proper equipment is in place, and if all vertical concrete edges meeting AC is tack-coated
- 3/8 lip on all concrete gutters
- Must check all AC truck deliveries to insure material meets required specifications of AC noted below, and temperature (260%F. to 320%F, and AR4000 or AR8000)

Type III C-3 (1/2" med) [BASE AND SURFACE COURSE]
Type III B-3 (3/4" med) [BASE COURSE ONLY]
Type III-D (3/8") [SURFACE COURSE]
OTHER

#### Deliveries not meeting these specifications must be rejected

- Must collect load tickets from asphalt plant and verify that required AC specification noted above is properly documented
- Must check AC lay-down procedure for thickness, temperature, and timely roller application; AC finish must be even and unsegregated
- Must insure that AC finish is a minimum of 3/8" above all adjoining concrete surfaces.
- Must test the AC for a minimum 95% R.C. when a 12 ton roller is not used on initial breakdown, or if asphalt compaction is a question due to site conditions or operational problems.

#### **NOTICE:**

The grading inspector will be randomly checking the site for the FULL TIME presence of the engineering representative, and that the above requirements are being met. Any failure to comply with these requirements will result in work being stopped, and/or the AC section being coresampled and tested by project engineer. The results of those findings will need review by County engineering staff. Mitigating measures to bring the AC up to design and required standards may be required prior to permit final.

#### **863** 4) WATER TEST:

Prior to application of seal coat or striping, the paved areas shall be flooded with water. The

grading inspector must be present to check the flooded areas and require the patching of low spots. Another water test may be required after patching.

The water test will also verify the activity of the water, and if the drainage is being carried as per the plans and specifications. Corrections and/or plan revisions may be required.

#### 870 | 5) FINAL INSPECTION:

When all work shown on the approved grading plan is complete, including all R&R work, drainage device(s), parking lot striping, and slope planting/irrigation. Site must be in a safe condition to allow public use. Required monumentation must be set.

#### In addition, the following is required for final:

- a) final line and grade certification and as-built plan from design engineer/architect
- b) final geotechnical report\* to include (minimum):
  - backfill testing of utility trenches and retaining walls; include depth of backfill, soil material used, & method of placement; describe placement of sub-drains behind any retaining walls;
  - state the required paving section and if achieved;
  - sub-grade, curb & gutter, & gravel base test results; equipment used for compaction;
  - gravel base gradation results;
  - a detailed reporting of the asphalt work (material type, spreading & roller equipment [include roller weight], temperatures, testing, AC specification used [i.e. Type III, C-3] and random copies of material load tickets);
  - a map locating all tests taken for sub-grade, base, AC, utility trenches, and retaining wall backfill zones:
  - and a statement that the work is completed per County standards, project specifications, the Grading Code, and is suitable for the intended use.

\*This report will need to be reviewed and approved prior to final of grading and release of bond.

c) Public Works Clearance

## FINAL NOTICE TO OWNER, CONSULTANTS, AND CONTRACTORS (PLEASE READ)

The undersigned understands that the inspections and requirements set forth in this handout are considered part of the permit and specifications for the project. Any work item completed without inspection, and any changes made to the plans, soil reports, specifications, and field conditions without securing written approval and inspection from the Grading Section is subject to removal and/or correction. Any "as built" conditions presented to the inspector are NOT ALLOWED, and if presented to the inspector are subject to removal. The County of Orange does not subscribe to a policy of inspecting and approving work "after the fact."

Owner	Civil Engineer/Architect
Ву	
Address	Address
Telephone	Telephone
C. T. F.	Callata
Soil Engineer	
Ву	By
Address	Address
Telephone	Telephone
Grading Contractor	Coordinator/Superintendent
Ву	By
Address	Address
Telephone	Telephone
Paving Contractor	Others
Ву	By
Address	Address
Telephone	Telephone